

## Journal Publications

- B. Trapp, G. H. Gunsch, R. A. Raines, and R. O. Baldwin "Evaluation and Mission-Specific Optimization of Satellite Packet Telemetry Protocol For Use On DoD Flight Test Ranges," *ACM Mobile Computing and Communications Review*, Accepted Sept 2002.
- R. W. Thomas, R. A. Raines, R. O. Baldwin, and M. A. Temple, "Performance Analysis of Multicast Protocols for Mobile Satellite Communication Networks," *Computer > Communications Journal, Special Issue on Advances on Performance Evaluation of Computer > and Telecommunications Networking*, Vol. 25 (11-12), July 2002, pp. 1085-1093.
- R.O. Baldwin, N. J. Davis IV, S. F. Midkiff, and R. A. Raines, "Packetized Voice Transmission using RT-MAC, a Wireless Real-time Medium Access Control Protocol," *ACM Mobile Computing and Communications Review*, > Vol. 5, No. 3, July 2001, pp. 11-25.
- R. W. Klein, M. A. Temple, R. A. Raines, and R. L. Claypoole Jr., "Interference Avoidance Communications Using Wavelet Domain Transformation Techniques," *IEE Electronic Letters*, Vol. 37, No. 15, 19 July 2001, pp. 987-989.
- M. M. Salah, R. A. Raines, M. A. Temple, and T. G. Bailey, "A novel approach for deriving bounds of punctured turbo codes," *IEE Electronic Letters*, Vol. 35, No. 25, 9 December 1999, pp. 2191-2192.
- R. A. Raines and N. J. Davis IV, "The simulation modeling and performance analysis of low earth orbit satellite communication networks for personal communications," *International Journal on Communication Systems*, Vol. 12, 1999, pp.197-215.
- K.E. Crowe and R. A. Raines, "A model to describe the distribution of transmission path elevation angles to the Iridium and Globalstar satellite systems," *IEEE Communications Letters*, Vol. 3, No. 8, August 1999, pp. 242-244.
- S. R. Pratt, R. A. Raines, C. E. Fossa, and M. A. Temple, "An operational and performance overview of the Iridium low earth orbit (leo) satellite system," *IEEE Communications Surveys*, <http://www.comsoc.org/pubs/surveys/>, 2<sup>nd</sup> Quarter 1999, pp. 1-15.
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- W. Polakowski, D. Cournoyer, S. Rogers, M. DeSimio, D. Ruck, J. Hoffmeister, and R. A. Raines, "Computer-aided breast cancer detection and diagnosis of masses using difference of Gaussians and derivative-based feature saliency," *IEEE Transactions on Medical Imaging*, Vol. 16, No. 6, December 1997, pp. 811-819.
- B. Ernisse, S. Rogers, M. Desimio, and R. A. Raines, "A complete automatic target cuer/recognition system for tactical FLIR images," *Optical Engineering*, Vol. 36, No. 9, September 1997, pp. 2593-2603.
- W. H. Shaw Jr., N. J. Davis IV, and R. A. Raines, "The application of metamodeling to interconnection networks", *ORSA Journal on Computing*, Vol. 6, No. 4, Fall 1994, pp. 369-380.

## Refereed Conference Publications

- C.M. Canadeo, M.A. Temple, R.A. Raines and R.O. Baldwin, "Code Selection for Enhancing UWB Multiple Access Communication Performance Using TH-PPM and DS-BPSK Modulations."

*Proceedings of the IEEE Wireless Communications and Network Conference (WCNC 2003), New Orleans, LA, March 2003, (Accepted: November 2002).*

M. J. Lee, M. A. Temple, R. L. Claypoole, Jr., and R. A. Raines, "Wavelet Domain Communication System: Bit Error Sensitivity Characterization For Geographically Separated Transceivers" (accepted for publication in IEEE MILCOM 2002), Anaheim, CA, October 2002.

T. M. Schwamb, R. O. Baldwin, R. A. Raines, and M. A. Temple, "Dynamic Bandwidth Allocation for Military Communication Networks," (accepted for publication in IEEE MILCOM 2002), Anaheim, CA, October 2002.

J. T. Ballah, R. O. Baldwin, R. A. Raines, and G. H. Gunsch, "Integrated MANET Mutual Authentication System (IMMAS)," *2002 International Symposium on Performance Evaluation of Computer and Telecommunication Systems*, San Diego, CA, July 2002 (on CD ROM, no hardcopy proceedings).

M. J. Lee, M. A. Temple, R. L. Claypoole Jr., and R. A. Raines, "Transform Domain Communications and Interference Avoidance Using Wavelet Packet Decomposition," *2002 IEEE Wireless Communications and Networking Conference*, Orlando, FL, March 2002, Vol. 1, pp. 255-259.

R. W. Thomas, R. A. Raines, R. O. Baldwin, and M. A. Temple, "Simulation Modeling and Evaluation of Satellite-Based Multicasting Protocols," *Fall 2001 IEEE Vehicular Technology Conference*, Atlantic City, NJ, 7-11 October 2001, Vol. 1, pp. 305-309.

R. W. Klein, M.A. Temple, R.L. Claypoole, Jr., R.A. Raines and J.P. Stephens, "Wavelet Domain Communication System (WDCS) Interference Avoidance Capability: Analytic, Modeling and Simulation Results," *Proceedings of the IEEE Military Communications Conference (MILCOM 2001)*, McLean, VA, October 2001, Vol. 2, pp. 1034-1038.

R. W. Thomas, R. A. Raines, R. O. Baldwin, and M. A. Temple, "Performance Analysis of Multicast Protocols for Mobile Satellite Communication Networks," *2001 International Symposium on Performance Evaluation of Computer and Telecommunication Systems*, Orlando, FL, 15-19 July 2001, pp. 27-34.

R.W. Klein, M.A. Temple, R.L. Claypoole, Jr., R.A. Raines, and J.P. Stephens, "Performance Characterization of a Proposed Wavelet Domain Communication System (WDCS)," *5<sup>th</sup> World Multi-Conference on Systematics, Cybernetics, and Informatics (SCI 2001), and 7<sup>th</sup> International Conference on Information Systems Analysis and Synthesis (ISAS 2001)* Orlando, FL, July 2001, Invited Paper, July 2001, **Best Paper Award**.

M. L. Roberts, M. A. Temple, R. A. Raines, and J. P. Stephens Sr., "Transform Domain Communications: Interference Avoidance and Acquisition Capabilities," *IEEE National Aerospace and Electronics Conference*, Dayton, OH, October 10-12, 2000, SP/N: pp 40-47.

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M. M. Salah, R. A. Raines, M. A. Temple, and T. G. Bailey, "A general interleaver for equal and unequal error protections for turbo codes with short frames," *IEEE International Conference on Information Technology: Coding and Computing*, Las Vegas, NV, March 27-29, 2000, pp 408-411.

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P. J. Swackhammer, M. A. Temple, and R. A. Raines, "Performance simulation of a transform domain communication system for multiple access applications," *1999 IEEE Military Communications Conference*, Atlantic City, NJ, October 31 – November 3 1999, pp. 1-5.

K. E. Crowe, R. A. Raines, and D. T. Goldizen, "A comparative analysis of the Iridium and Globalstar satellite system transmission paths," *The 8th International Aerospace Congress*, Adelaide, South Australia, 13-15 September 1999, pp. 1-10.

C. Bohn, G. Lamont, J. Little, and R. Raines, "Asymmetric load balancing on a heterogeneous cluster of PCs," *1999 International Conference on Parallel and Distributed Processing Techniques and Applications*, Las Vegas, NV, June 28 – July 1 1999, pp. 2515-2522

C. E. Fossa, R. A. Raines, M. A. Temple, G. H. Gunsch, "A tutorial overview of the Iridium low earth orbit satellite communication system," *IEEE National Aerospace and Electronics Conference*, Dayton, OH, July 1998, pp. 152-159.

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D. McCandless, S. Rogers, J. Hoffmeister, D. Ruck, R. Raines, and B. Suter "Wavelet detection of clustered microcalcifications," *SPIE International Conference on Applications of Wavelets*, Orlando FL, April 1996, Vol. 2762, pp 388-399.

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R. A. Raines, N. J. Davis IV, and W. H. Shaw, "The modeling, simulation, and comparison of interconnection networks for parallel processing," *1988 Summer Computer Simulation Conference*, Seattle, WA, July 1988, pp. 87-92.

## **Other Publications**

G. Gerace, R. Mills, B. Welsh, R. Raines, A. Terzuoli, and B. Suter, "Military communications graduate education curriculum," *1996 ASEE Annual Conference & Exposition*, Washington D.C., June 1996, Session 1532, pp. 1-10.